Energy Facility Contractors Group

Dedicated to Promoting Excellence in DOE Operations

Guidance on Performance Analysis
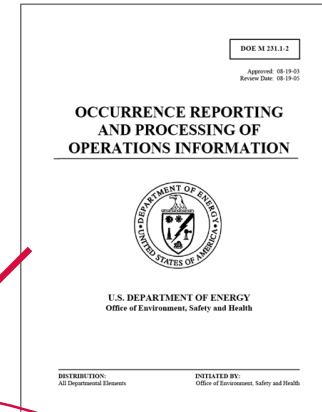
April 25, 2006

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DOE requires performance analysis of occurrences

- **DOE Order 231.1A requires implementation of DOE Manual 231.1-2**

- **DOE Manual 231.1-2, Section 5.8 requires quarterly analysis**

5.8 Performance Analysis and Identification of Recurring Occurrences. Each contractor at a site and managers at DOE owned and operated sites must perform ongoing, but as a minimum quarterly, analyses of events during a 12-month period to look for trends. This periodic performance analysis must evaluate occurrences of all significance categories plus contractor-/operator-determined non-reportable events in order to prevent serious events from occurring. Quarterly performance analysis results must be reported to contractor and DOE line management in order to achieve improvements.

Occurrences identified as recurring require a new occurrence report to be submitted for notification of the recurring issue, with investigation, root cause analysis, and corrective actions subsequently required. Previous individual Occurrence Report Numbers associated with the recurring issue must be provided in the Similar Occurrence Report Numbers field. The reporting organization should select the appropriate reporting criteria associated with the recurring issue. If no specific reporting criteria can be identified, the Reporting Criteria should be listed as Group 10, Criteria #2.

Recurring occurrences must be categorized and reported collectively as a Significance Category R occurrence, even if each individual occurrence had been originally categorized at a higher or lower significance level (e.g., as Significance Category 1 or 4 or even as non-reportable occurrences). See the Occurrence Reporting Model (Section 11) to learn the requirements for a Significance Category "R" occurrence. More information on the performance analysis process for all occurrence reports and specifics on recurring occurrences are provided in DOE G 231.1-1, *Occurrence Reporting and Performance Analysis Guide.*

DOE Headquarters' Office of Environment, Safety and Health must perform a semiannual analysis of all reportable occurrences during a 12-month period to look for trends. In those cases where recurring events are discovered, these events must promptly and formally be brought to the attention of the Program Office(s) for identification of appropriate corrective actions.

DOE M 231.1-2

Approved: 08-19-03
Review Date: 08-19-05

OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION

U.S. DEPARTMENT OF ENERGY
Office of Environment, Safety and Health

DISTRIBUTION:
All Departmental Elements

INITIATED BY:
Office of Environment, Safety and Health

DOE requires performance analysis of occurrences

- **DOE Guide 231.1-1, Attachment 5, describes the criteria to be used in the determinations of an ORPS Recurring Problem**

Performance Analysis is defined as analysis of events during a 12-month period to look for trends

- At this time, the task group is focusing on performance analysis as it is applied to occurrences

- The process can be applied to other events and the EFCOG guidance may be expanded later

- The goal of the EFCOG guidance is to supplement the existing DOE manual and guidance

The Performance Analysis Task Team started writing this guide in spring 2005

- **The draft EFCOG guide on performance analysis includes:**
    - **Definitions**
    - **Performance Analysis Process**
    - **Documenting the performance Analysis**
    - **Management Review**
    - **Reporting Recurring Events**

- **Draft guide was distributed for comments in fall 2005**

- **Comments indicated that there are unresolved questions related to analyzing data**

The goal of the Spring 2006 session is to develop more guidance on analysis methods and criteria

EFCOG members have expressed the need for additional guidance

- **Which "problems" should be included in the analysis?**
  - Reportable and non-reportable events are known to be included
  - Concern that including assessment findings without an event may cause confusion
- **When should each event be reported individually and reported as recurring?**
  - Can the third event be reported as a recurring event and list the previous two?
  - Must the third event be reported singularly and then a recurring report filed?
- **How does one evaluate small sets of data to identify recurring events?**
  - Data mining and statistical analysis do not meet analyst's needs
  - How many events or what type of trend does it take to be recurring?
- **When events are identified by this analysis, what criteria is used to determine whether the occurrence should be reported as recurring?**
  - Must the event be determined to be unacceptable?

We plan to discuss and clarify the existing set of questions

- **Did the trending data for the series/group of events indicate a significant negative trend?**

- **Were there a significant number or percentage of implementation failures discovered to indicate that one or more components of the program were not effective in ensuring successful completion of the task or activity?**

- **Have multiple control failures within the boundaries of a single occurrence taken place indicating a common breakdown in a program or area of a program?**

- **Have small and apparently isolated series/groups of events been seen within various aspects of an overall program that collectively indicate a program weakness when viewed from a site perspective?**

We plan to discuss and clarify the existing set of questions

- **Have failures been discovered during implementation of a particular program, or portion of a program, that one or more components of the program were not effective in ensuring successful completion of the task or activity?**

- **Was there a common underlying cause or weakness in controls that necessitated corrective actions?**

- **Did the group of related events indicate a series of common work process breakdowns or a series of common quality criteria issues?**

We plan to discuss and clarify the existing set of questions

- **Did related series/groups of events breach multiple, but not necessarily all, barriers protecting workers, the public, or the environment from potential or actual adverse impacts of an event?**

- **Did related series/groups of events, having the same underlying cause or having contributed to or were the unavoidable consequence of the underlying problem, occur within a single facility or operation?**

- **Did a causal factor of the series/group of events indicate a lack of management involvement, or breakdown in management controls, or errors in decisions/directions by managers that resulted in systemic problems or violation of safety rules?**